In re Patent Application of
ZANGERL
Serial No. **NOT YET ASSIGNED**
Filed: **HEREWITH**
_____/

Listing of Claims:

This listing of claims replaces all prior versions and listing of claims in the application.

Claims 1-10 canceled.

11. (new) A redundant GPS antenna splitter apparatus comprising:

a plurality of GPS antennas and respective amplifiers connected thereto;

a plurality of passive splitters connected downstream from said amplifiers and having a plurality of GPS outputs to be connected to respective transmitters so that each GPS output has a voltage thereon corresponding to the respective transmitter; and

a DC control stage comprising at least one current measuring stage for selectively providing a DC supply to said GPS antennas and respective amplifiers based upon the GPS outputs.

12. (new) The redundant GPS antenna splitter apparatus according to Claim 11 wherein said plurality of GPS outputs are eight in number.

13. (new) The redundant GPS antenna splitter apparatus according to Claim 11 wherein said DC control stage provides the DC supply for the first and second GPS antennas at any time, even if only one transmitter is in operation; and

wherein a transmitter which supplies a highest voltage is activated.

14. (new) The redundant GPS antenna splitter apparatus according to Claim 11 wherein said DC control stage comprises a DC monitoring stage including a respective decoupling stage for each GPS output.

15. (new) The redundant GPS antenna splitter apparatus according to Claim 14 wherein each decoupling stage comprises:

an operational amplifier responsive to a difference between a GPS output voltage for a respective transmitter and the DC supply voltage; and

a semiconductor switch responsive to the operational amplifier to connect a transmitter with a highest GPS output voltage to provide the DC supply voltage.

16. (new) The redundant GPS antenna splitter apparatus according to Claim 15 wherein the DC supply voltage from the transmitter with the highest GPS output voltage is connected to said at least one current measuring stage.

17. (new) The redundant GPS antenna splitter apparatus according to Claim 11 wherein said DC control stage further comprises at least one window comparator and a change-over and holding stage connected thereto; and wherein one of said amplifiers is kept in switch-on mode by said at least one

current measuring stage in cooperation with said at least one window comparator and said change-over and holding stage.

18. (new) The redundant GPS antenna splitter apparatus according to Claim 17 wherein said at least one current measuring stage comprises:

a pair of current measuring resistors connected together in series;

an operational amplifier having an input and an output connected to said pair of current measuring resistors; and

a transistor having a control terminal connected to the output of said operational amplifier and having a conduction terminal connected to said at least one window comparator.

19. (new) The redundant GPS antenna splitter apparatus according to Claim 18 wherein said change-over and holding stage is activated by a signal from said at least one window comparator to keep the DC supply to an active GPS antenna, and to switch off the DC supply to the other GPS antenna and the associated amplifier.

20. (new) The redundant GPS antenna splitter apparatus according to Claim 11 wherein said DC control circuit further comprises a lightning protection filter connected to each respective GPS antenna to effectively protect downstream stages from overvoltages.

21. (new) The redundant GPS antenna splitter apparatus according to Claim 11 further comprising a high-pass filter connected to each respective amplifier; and wherein each high-pass filter operates at half the GPS frequency.

22. (new) A redundant GPS antenna splitter for a plurality of GPS antennas and respective amplifiers connected thereto, the redundant GPS splitter comprising:

a plurality of passive splitters connected downstream from the amplifiers and having a plurality of GPS outputs to be connected to respective transmitters so that each GPS output has a voltage thereon corresponding to the respective transmitter; and

a DC control stage comprising at least one current measuring stage for selectively providing a DC supply to the GPS antennas and respective amplifiers based upon the GPS outputs.

23. (new) The redundant GPS antenna splitter according to Claim 22 wherein said plurality of GPS outputs are eight in number.

24. (new) The redundant GPS antenna splitter according to Claim 22 wherein said DC control stage provides the DC supply for the first and second GPS antennas at any time, even if only one transmitter is in operation; and wherein a transmitter which supplies a highest voltage is activated.

25. (new) The redundant GPS antenna splitter according to Claim 22 wherein said DC control stage comprises a DC monitoring stage including a respective decoupling stage for each GPS output.

26. (new) The redundant GPS antenna splitter according to Claim 25 wherein each decoupling stage comprises:

an operational amplifier responsive to a difference between a GPS output voltage for a respective transmitter and the DC supply voltage; and

a semiconductor switch responsive to the operational amplifier to connect a transmitter with a highest GPS output voltage to provide the DC supply voltage.

27. (new) The redundant GPS antenna splitter according to Claim 26 wherein the DC supply voltage from the transmitter with the highest GPS output voltage is connected to said at least one current measuring stage.

28. (new) The redundant GPS antenna splitter according to Claim 22 wherein said DC control stage further comprises at least one window comparator and a change-over and holding stage connected thereto; and wherein one of the amplifiers is kept in switch-on mode by said at least one current measuring stage in cooperation with said at least one window comparator and said change-over and holding stage.

29. (new) The redundant GPS antenna splitter according to Claim 28 wherein said at least one current measuring stage comprises:

a pair of current measuring resistors connected together in series;

an operational amplifier having an input and an output connected to said pair of current measuring resistors; and

a transistor having a control terminal connected to the output of said operational amplifier and having a conduction terminal connected to said at least one window comparator.

30. (new) The redundant GPS antenna splitter according to Claim 29 wherein said change-over and holding stage is activated by a signal from said at least one window comparator to keep the DC supply to an active GPS antenna, and to switch off the DC supply to the other GPS antenna and the associated amplifier.

31. (new) The redundant GPS antenna splitter according to Claim 22 wherein said DC control circuit further comprises a lightning protection filter connected to each respective GPS antenna to effectively protect downstream stages from overvoltages.

32. (new) The redundant GPS antenna splitter according to Claim 22 further comprising a high-pass filter

connected to each respective amplifier; and wherein each high-pass filter operates at half the GPS frequency.

33. (new) A method for making a redundant GPS antenna splitter for a plurality of GPS antennas and respective amplifiers connected thereto, the redundant GPS splitter further comprising a plurality of passive splitters connected downstream from the amplifiers and having a plurality of GPS outputs to be connected to respective transmitters so that each GPS output has a voltage thereon corresponding to the respective transmitter, the method comprising:

providing a DC control stage comprising at least one current measuring stage for selectively providing a DC supply to the GPS antennas and respective amplifiers based upon the GPS outputs.

34. (new) The method according to Claim 33 wherein the plurality of GPS outputs are eight in number.

35. (new) The method according to Claim 33 wherein the DC control stage provides the DC supply for the first and second GPS antennas at any time, even if only one transmitter is in operation; and wherein a transmitter which supplies a highest voltage is activated.

36. (new) The method according to Claim 33 wherein the DC control stage comprises a DC monitoring stage including a respective decoupling stage for each GPS output.

37. (new) The method according to Claim 36 wherein each decoupling stage comprises:

an operational amplifier responsive to a difference between a GPS output voltage for a respective transmitter and the DC supply voltage; and

a semiconductor switch responsive to the operational amplifier to connect a transmitter with a highest GPS output voltage to provide the DC supply voltage.

38. (new) The method according to Claim 37 wherein the DC supply voltage from the transmitter with the highest GPS output voltage is connected to the at least one current measuring stage.

39. (new) The method according to Claim 33 wherein the DC control stage further comprises at least one window comparator and a change-over and holding stage connected thereto; and wherein one of the amplifiers is kept in switch-on mode by the at least one current measuring stage in cooperation with the at least one window comparator and the change-over and holding stage.

40. (new) The method according to Claim 39 wherein the at least one current measuring stage comprises:

a pair of current measuring resistors connected together in series;

an operational amplifier having an input and an output connected to the pair of current measuring resistors; and

a transistor having a control terminal connected to the output of the operational amplifier and having a conduction terminal connected to the at least one window comparator.

41. (new) The method according to Claim 40 wherein the change-over and holding stage is activated by a signal from the at least one window comparator to keep DC supply to an active GPS antenna, and to switch off the DC supply to the other GPS antenna and the associated amplifier.